Dividing Algebraic Fractions

Video 22 on Corbettmaths

Examples

Workout

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Question 1: Express the following as a single **simplified** fraction.

(a) $\frac{x}{2} \div \frac{2}{3}$

(b) $\frac{a}{c} \div \frac{d}{5}$

(c) $\frac{3}{w} \div \frac{2}{a}$

(d) $\frac{c}{4} \div \frac{3}{c}$

(e) $\frac{3a}{4} \div \frac{6c}{7}$

(f) $\frac{4x}{9y} \div \frac{6x}{7}$

(g) $\frac{10x}{3y} \div \frac{15x}{y}$

(h) $\frac{ab}{3} \div \frac{2a}{b}$

(i) $\frac{4fg}{h} \div \frac{f}{2h}$

Question 2: Express the following as a single fraction. **Simplify** if possible.

(a) $\frac{x - 4}{8} \div \frac{3x - 12}{2}$

(b) $\frac{x + 3}{x + 2} \div \frac{x + 1}{x + 2}$

(c) $\frac{x + 1}{2} \div \frac{2x + 2}{3}$

(d) $\frac{3x + 9}{2} \div \frac{x + 3}{4}$

(e) $\frac{4}{x - 2} \div \frac{3}{x^2 - 2x}$

(f) $\frac{11}{4x^2 + 2x} \div \frac{3}{2x + 1}$

(g) $\frac{x + 3}{x + 1} \div \frac{x}{(x + 1)^2}$

(h) $\frac{x^2}{7} \div \frac{6x^3 + 8x^2}{x^2 - 7x}$

(i) $\frac{x}{x + 6} \div \frac{x + 6}{x^2}$

(j) $\frac{x^2 + 7x + 10}{2} \div \frac{x^2 + 4x - 5}{4}$

(k) $\frac{14}{x^2 - 5x + 6} \div \frac{7}{x^2 + 3x - 10}$

(l) $\frac{x + 4}{x + 5} \div \frac{3x + 12}{x^2 - 25}$

(m) $\frac{x^3 - x}{x + 2} \div \frac{x^2 - x}{x^2 - 5x - 14}$

Answers

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